

**ORGANIZATION OF  
AFFILIATED SECURE  
INTEROPERABLE RF  
SYSTEMS (OASIS)**

**MILWAUKEE COUNTY  
GOVERNANCE BOARD**

Chairperson: Andy Pederson,  
Village Manager, Village of  
Bayside

Vice Chairperson: Christine  
Westrich, Director,  
Milwaukee County Office of  
Emergency Management

Secretary: Eric Cera, Police  
Chief, Hales Corners Police  
Department

Director: Erik Brooks, Mayor,  
City of South Milwaukee

Director: Robert Ugaste, Fire  
Chief, Wauwatosa Fire  
Department

Director: Steve Kreklow,  
Budget Director, Office of  
Performance Strategy &  
Budget, Milwaukee County

Director: Kathleen David,  
Deputy Director of  
Operations and Maintenance,  
General Mitchell International  
Airport, Milwaukee County

May 13, 2016

The Honorable Chris Abele  
Executive, Milwaukee County  
Milwaukee County Courthouse  
901 N. 9th Street, Room 306  
Milwaukee, WI 53233

and

The Honorable Mayors,  
Village Managers,  
and Executives of OASIS  
Subscriber Organizations

The Governance Board of the Milwaukee County OASIS Public Safety Radio Subsystem, in accordance with Section 6.05 of Exhibit F of the Intergovernmental Agreement Permitting Access to Milwaukee County's Public Safety Radio Subsystem, has prepared and approved this 2016 OASIS Annual Report.

This report includes an Annual Operational Budget (Appendix C) while also detailing the Capital Improvement Fund commencement in 2018.

By submission of this Annual Report, we hereby acknowledge:

1. We have at this time no recommendations for changes to the operational and technical design of the subsystem.
2. We have at this time no recommendations for changes to the funding model or operational standards needed to meet the costs for subsystem operations and maintenance.
3. We have reviewed and we recommend the 2017 Operational Budget for the subsystem, as presented in Appendix C.

We remain available to provide additional information regarding the state of the operations, finance, governance, and overall plans of the Milwaukee County subsystem of OASIS.

Respectfully submitted on behalf of the Governance Board of the Milwaukee County OASIS Subsystem,

DocuSigned by:

*Andy Pederson*

5/20/2016

Andy Pederson  
Governance Board Chair

DocuSigned by:

*Christine Westrich*

5/20/2016

Christine Westrich  
Governance Board Vice Chair

OASIS Public Safety Radio  
Governance Board 2016 Annual Report

OASIS – Organization of Affiliated Secure  
Interoperable RF Sub-Systems

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1. Scope and Purpose

This inaugural annual report provides an overview on the current state and future planning for the OASIS Public Safety Radio Sub-System in Milwaukee County. The 2016 Annual Report has been approved by the Governance Board in accordance with the Intergovernmental Agreement (IGA) Exhibit F, Section 6.05.<sup>1</sup>

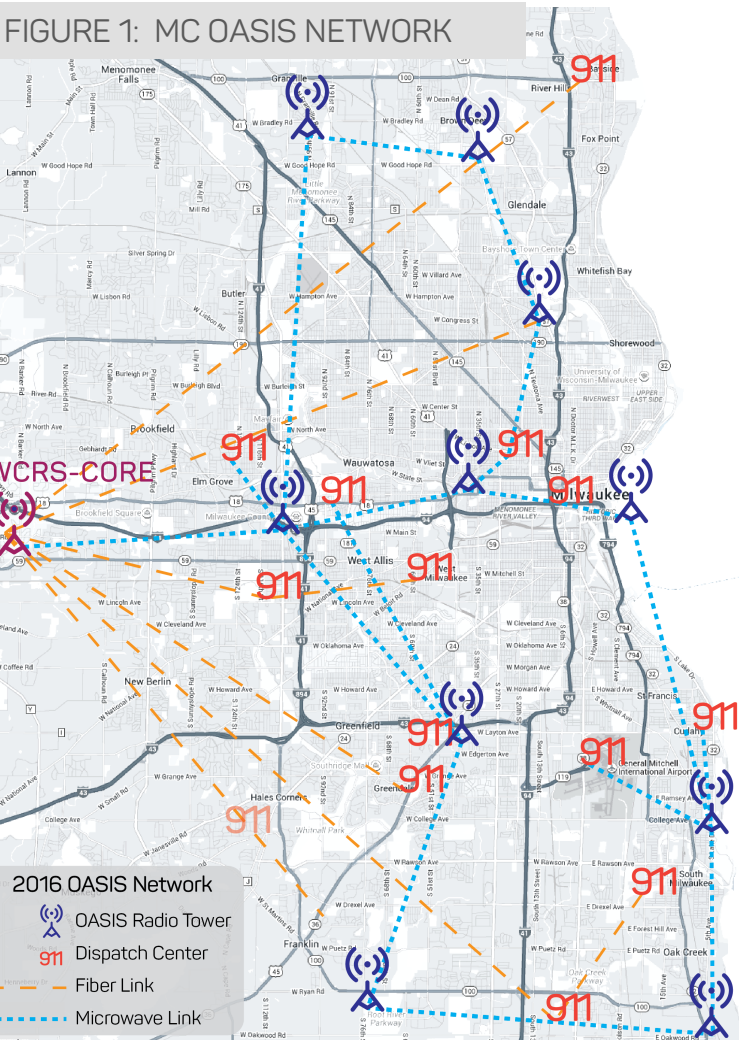
In 2010, the OASIS digital upgrade project was initiated with Waukesha County’s Department of Emergency Preparedness and the Department of Administrative Services (DAS), Information Management Services Department (IMSD) of Milwaukee County (MC). Together, the counties commissioned CDX Wireless Inc. to conduct a needs assessment and subsequent concept/design/budget report. A joint request for proposal (RFP) was initiated in April 2013.

The RFP garnered three responses: Airbus (Cassidian), Harris and Motorola Solutions Inc. The RFP review and scoring panel consisted of representatives from Waukesha and Milwaukee counties, with final contract award to Motorola Solutions Inc., in December 2013.

DAS-IMSD continued their role as the project lead through December 2014. On Jan. 1st, 2015, with County Board adoption of the 2015 Budget, the new Office of Emergency Management (OEM) was created and

integrated four public safety divisions to include the former DAS-IMSD radio project.<sup>2</sup>

As of this annual report, OEM is 17 months aged and making significant impacts on intergovernmental cooperation, data sharing, academic excellence, and urban resiliency.



<sup>1</sup> Governance Board Meeting Minutes of 2.14.2016 show unanimous approval of reporting the Annual Operating Budget, Five-Year Capital Improvement Plan and the Annual Report on May 1<sup>st</sup> of each year.

<sup>2</sup> OEM consists of four divisions: Emergency Management, Emergency Medical Services, 9-1-1 & EMS Communications Center, and Radio Services.



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2. OASIS Operations

OASIS is a P25<sup>3</sup> digital, simulcast<sup>4</sup>, trunked<sup>5</sup> public safety radio system that branches both Waukesha and Milwaukee counties. Each county is actively deploying radio towers and infrastructure equipment (e.g., transmitters, dispatch consoles) within their boundaries. The link between these ‘sub-systems’ is through the Shared Core, which is equipment that interconnects, controls, and manages both sub-systems to create OASIS.<sup>6</sup>

<b>FIGURE 2A</b>	<b>FIGURE 2B</b>	<b>FIGURE 2C</b>	
<b>MUNICIPALITIES</b>	<b>MKE CO DEPT's</b>	<b>EXTERNAL PARTNERS</b>	OASIS (MC)
Bayside (9-1-1) *	Behavioral Health	<u>MUTUAL AID USERS</u>	serves the
Brown Deer	Children's Court Ctr	American Red Cross	municipalities and
Cudahy (9-1-1)	County Executive	ARES/RACES	departments
Fox Point	District Attorney	FireBell	shown in
Franklin (9-1-1)	OEM		FIGURES 2A-C.
Glendale	Facilities Mgmt	<u>SPONSORED USERS</u>	OASIS is being
Greendale (9-1-1)	Highway	HIDTA, West Allis	deployed with
Hales Corners (9-1-1)	IMSD	Mayfair Mall, Wauwatosa	expansion
North Shore Fire Dept.	House of Corrections	VA, West MKE	features to allow
Oak Creek (9-1-1)	Medical Examiner		additional users
River Hills	Parks	<u>INDEPENDENT GOVT</u>	in Milwaukee and
Shorewood	Sheriff	MADACC	Waukesha
South Milwaukee (9-1-1)	Transit		counties. The
St. Francis		7 TOTAL	OASIS system
Wauwatosa (9-1-1)	13 TOTAL		will also allow
West Allis (9-1-1)	1, 9-1-1 Dispatch Ctr		interconnections
West Milwaukee (9-1-1)	2, Operations Ctr's		to future radio
Whitefish Bay			sub-systems in
18 TOTAL			neighboring
10, 9-1-1 Dispatch Ctr's			counties.

\* 9-1-1 indicates muni Public Safety Answering Points (PSAPs)

<sup>3</sup> P25 is the Association of Public Safety Communications Officials’ (APCO) Project 25, with origins beginning in 1988 from a U.S. Congress mandate to the Federal Communications Commission (FCC) on upgrading public safety radio communications (notably from analog to digital.)

<sup>4</sup> Simulcast Radio System: a signal is transmitted over multiple radio towers simultaneously, providing wide area coverage and improved in-building coverage.

<sup>5</sup> Trunked Radio System: users communicate on talkgroups rather than discrete frequencies that are dynamically assigned a talk path from a pool of available channels by a computer control system. Allows for efficient utilization of channel resources to support a greater number of users.

<sup>6</sup> The Shared Core resides at the Waukesha County Radio Services (WCRS) located in Waukesha County at 2120 Davidson Rd., Waukesha, WI 53186.

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OASIS uses 800MHz radio frequencies with transmitters at ten sites (FIGURE 1). APCO P25 is the basis for its deployment, following a common set of digital signaling features among user-radios specifically designed to be vendor-neutral.

### As a two-county system, OASIS offers the following improvements:

- Improved radio coverage, system reliability, security and capacity (fewer busy signals).
- Cost-savings due to joint ownership of the Shared Core at WCRS.
- Substitute of costly leased telephone lines with a new site-to-site digital microwave network.
- Interoperability through the Shared Core connection between Milwaukee and Waukesha sub-systems:
  - Direct communications between users of varying agencies and counties.
  - External network connections to the City of Milwaukee OpenSky and the State of Wisconsin WISCOM radio systems.

FIGURE 3 shows the current anticipated project schedule, which is nearly thirteen months longer than the 2013 projected schedule. Delays occurred incrementally and were largely due to the unforeseen execution of administrative formalities such as: permits, memorandums of understanding, lease agreements, and project change order approvals.

The build-out of a tenth site was proposed by the vendor in late 2014 (35<sup>th</sup> St. and McKinley Ave), with approximately 85% of the cost absorbed by the vendor. This also incurred additional delays; however, a worthwhile consequence given this tenth tower asset in the OASIS network.

Further, the vital step of testing and acceptance shall begin later than anticipated (late May 2016), as the foliage bloom in our northern climate is naturally overdue. Regardless, initial operations are anticipated in June 2016, and users will be migrated from the analog system to OASIS through the fall and winter season in 2016.

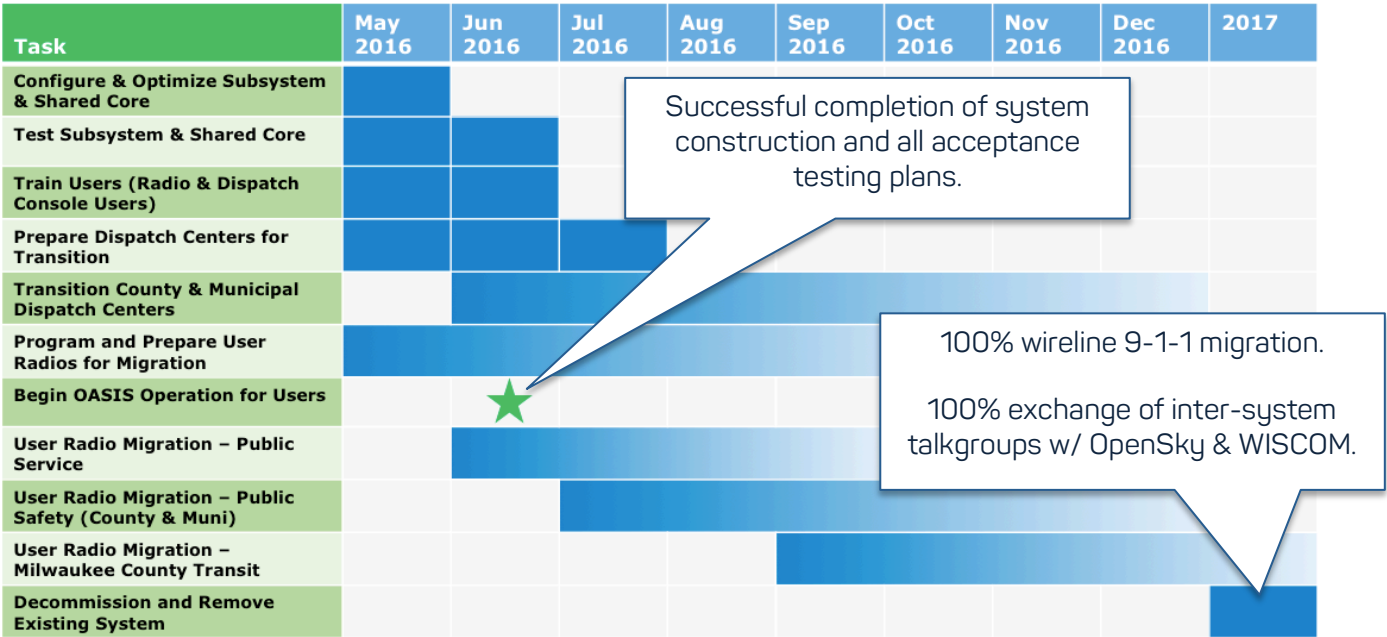
Ergo, the OASIS system build-out continues from its beginnings in early 2014. This build-out has encompassed three new radio towers and significant structural improvements at the seven original sites. While these towers are now readied and equipped with necessary electronics, the Shared Core and OASIS sub-systems are being configured and optimized.

Current priorities involve tasks related to 9-1-1 dispatch center consoles and cutting-over to OASIS. OEM is tracking our municipal 9-1-1 partners through this complex step, which involves each unit of local government procuring hardware, connecting to the Shared Core (fiber/microwave), and configuring their consoles.

During this transition, the Shared Core interconnection will allow direct communications between migrated users and those that remain on the analog system until switch-over completion. Dismantling of the current system will occur upon 100% user migration to OASIS.

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1 FIGURE 3: Remaining tasks and goals of OASIS implementation



2

3 3. OASIS Governance

4 The Shared Core between Milwaukee and Waukesha Counties is the foundation of the robust  
5 interoperability improvements granted through this project. The Memorandum of Understanding  
6 (MOU) between counties is expected to obtain signatory approvals by October, 2016; a  
7 timeframe that will ensure all user requirements are fully-vetted allowing joint and cooperative  
8 operations.

9 Shared Core MOU

10  
11  
12 Rights and responsibilities for  
13 daily operations, software  
14 updates, major upgrades and  
15 expansion.  
16

Shared Core ownership is between Milwaukee and Waukesha counties, each contributing 50% to the capital cost. The physical location is at 2120 Davidson Rd., Waukesha, WI 53186, the Waukesha County Radio Services (WCRS) facility, whose on-site expertise ensures smooth daily operations of OASIS. WCRS maintains the Shared Core with specificities outlined in the MOU.

17 Vendor Maintenance Agreement

18 System security updates, platform  
19 upgrades, off-site system  
20 performance monitoring and  
21 component repairs, on-site system support, telephone support.

Technical support above and beyond WCRS capabilities for the Shared Core and expertise on the sub-system of Milwaukee County will be procured from the system vendor through an annual Maintenance Agreement.

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1 The partnering document within the County of Milwaukee is the OASIS Intergovernmental  
2 Agreement (IGA) which defines responsibilities of the county as a system operator and those  
3 responsibilities of the user agencies as subscribers. The level of service is dictated as well as the  
4 graduated schedule for usage fees paid by subscriber agencies.

FIGURE 4: Usage Fees & Capital Improvement Fund

Year	Usage Fee	Cap. Imp. Fee	Total Fee
Municipal \$ per radio per month			
2015	\$2	\$0	\$2
2016	\$5	\$0	\$5
2017	\$9	\$0	\$9
2018	\$12	\$2	\$14
2019	\$14	\$3	\$17
2020	\$14*	\$4	\$18*
2021		\$5	\$19*
2022		\$5**	\$19*,**
2022+		\$5**	\$19*,**
Milwaukee County \$ per radio per month			
2015+	\$55.87	\$0	\$55.87
* may be adjusted per CPI			
** may be increased with approval			

The municipal agency usage fees are combined with Milwaukee County departmental fees to fully fund the operations and maintenance of OASIS.

OEM and the County’s budget office track departmental radio inventories which in turn dictate the per radio charge for county departments. The 2016 charges equate to \$55.87 per radio per month.

The IGA also sets a schedule for municipal payments to a Capital Improvement Fund that is to be kept in “a segregated fund that is under control” of the Governance Board “for the purpose of the betterment or replacement of” OASIS.<sup>7</sup>

OEM also serves the leading role as the county department responsible for the daily operations and maintenance of the OASIS sub-system. OEM Radio Services works in

tandem with the OASIS Governance Board, abiding by the charter of the Board.<sup>8</sup>

2016 OASIS Governance Board

- Chair: Andy Pederson, Bayside Village Manager
- Vice-Chair: Christine Westrich, Dir, MC OEM
- Secretary: Eric Cera, Hales Corners Police Chief
- Director: Erik Brooks, South Milwaukee Mayor
- Director: Robert Ugaste, Wauwatosa Fire Chief
- Director: Steve Kreklow, MC Budget Director
- Director: Kathleen David, Dep Dir MC GMIA O&M

The OASIS Governance Board, created through the implementation of the IGA, is comprised of seven members representing municipal agencies and Milwaukee County. Duties and accomplishments are outlined below.

<sup>7</sup> IGA, Paragraph 4.1, Page 1.

<sup>8</sup> IGA, Exhibit F, dictates OASIS Governance Board, Sub-Committee, and Special Committee membership and responsibilities.

## OASIS Governance Board 2016 Annual Report

### DUTIES of the OASIS Governance Board

1. Sole control of the segregated Capital Improvement Fund (IGA 4.1, 4.4).
  - Allocation of these monies to procure contracted services to identify system requirements for P25 system replacement; commencing no later than 2028.
2. Annual report to include recommendation on OEM OASIS operating budget to the County Executive and a 5-year Capital Improvement Plan.
3. Approval of new users, non-public safety users and associated user fees.
4. Creation of the Tech & Ops Committees and implementation of recommended standards.
5. Prohibited actions include:
  - Implementation of OASIS,
  - Policies or standards which expressly contradict the Waukesha MOU or the IGA,
  - Negotiate with contractor/vendors regarding purchase, and
  - Levy taxes, incur debt, issue bonds and/or sue.

### ACHIEVEMENTS of the OASIS Governance Board

1. Election of Officers.
2. Successful petition for extension of subscriber radio warranty, with coverage through July 1, 2017 or 18 months after receipt of shipment.
3. Developed and approved the following Tech/Ops Standards:
  - OASIS Standard 001 – General Encryption Policies,
  - OASIS Standard 002 – Definition of Active Radio,
  - OASIS Standard 003 – Definition of Mutual Aid User and Use,
  - OASIS Standard 004 – Definitions for Talkgroup Identifiers & Failsoft Assignments,
  - OASIS Standard 005 – Policies for Talkgroup Priorities and Intra-System Roaming.
4. Established System Key requirements on agency programming of user radios.
5. Negotiated zero-cost system upgrades (SUAll/SUS) with the vendor for municipal users, saving over \$715,000 over a ten-year period.

The aforementioned standards are recommended to the OASIS Governance Board by the standing Technical and Operational Committees, referred together as 'Tech and Ops'. The two sub-committees have joined to create one standing body of experts which have been very productive in the past year.

The meetings of the Board and Tech/Ops are open to the public and non-voting members regularly attend and contribute.<sup>9</sup>

OEM actively participates in the Governance Board and Tech/Ops to communicate system readiness, user agency deliverables, and for collaborative planning and execution of the migration to OASIS digital radio.

<sup>9</sup> In accordance with Wis. s.s. Chapter 19, Open Records and Open Meetings Provisions.

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2016 OASIS Technical Committee

- Chair: Batt Chief Jim Mayer, North Shore FD
- Vice-Chair: Lt Dean Nelson, Cudahy FD
- Secretary: Scott Grahn, Bayside Comm’s
- Lt Andy Jensen, St. Francis FD
- Greg Reske, MC GMIA
- Officer Jim Turk, Whitefish Bay PD
- Erik Viel, MC OEM Radio Dir

2016 OASIS Operational Committee

- Chair: Asst Chief J. Scharfenberg, West Allis FD
- Vice-Chair: Michelle Dahlen, Wauwatosa IT/911
- Secretary: Erik Viel, MC OEM Radio Dir
- Lt Chris Botsch, West Allis PD
- Capt Wes Guajardo, Hales Corners FD
- Sue Robinson, MC 9-1-1 & EMS Supe
- Julie Schneider, MC Transit Services (MCTS)

2016 OASIS Tech/Ops Non-Voting

- Phil Bruha, Motorola Solutions Inc
- Brian Jansen, ARES/RACES
- John Mesich, City of MKE PD
- Chris Petterson, WCRS
- Josh Ripp, State of Wis/WISCOM
- Steve Surwillo, CDX Wireless
- Debbie Wilichowski, City of MKE FD

Additionally, OEM and partnering municipalities from across the county have been active participants in efforts by the State of Wisconsin and the U.S. Department of Commerce in identifying requirements for the future of public safety communications commonly known as FirstNet. The FirstNet initiative (a/k/a Nationwide Public Safety Broadband (NPSB)) is a wireless data system which originated in early 2012.

FirstNet has cast an RFP and is soliciting vendor responses. This RFP specifies that the system is to use the same wireless data signaling format as the 4G/LTE systems operated by cellular companies such as Verizon.

The FirstNet build-out and go-live schedule for a nationwide system have not yet been determined. Additional determinations include a timeframe to support voice communications.

In the meantime, the OASIS user groups will remain engaged in the FirstNet planning ensuring public safety radio implements national standards and current technologies, all the while maintaining interoperability.

4. OASIS Finances

The OASIS sub-system build-out project is known as W0614 in Milwaukee County government. W0614 is supported through County Board action in the adoption of legislative files that ensure the implementation and funding of the OASIS sub-system and the Shared Core. The W0614 project was originally appropriated as a project of \$17,490,699, to be expended as bonds and cash, through 2010 to 2017. See APPENDIX A.



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1 An amount of \$308,692 was added to the project budget through a cash fund transfer in 2016,  
2 raising the total project budget to \$17,799, 391. This budget amount funds the following:

- 3 • 50% of the Shared Core,  
4 • The entire sub-system of Milwaukee County to include site construction/remediation, radio  
5 site equipment and microwave links,  
6 • User radios for Milwaukee County (MC) departments,  
7 • Dispatch consoles for MC operations to include 9-1-1, EMS, and Transit (MCTS),  
8 • Professional services, and  
9 • Interest on bonds.

Current Project Budget		Encumbered, or contractually obligated.
PAID-OUT	\$ 12,331,992	MC migration, building amplifiers, tower site clean-up, and future expansion.
ENCUMBERED	3,521,040	
PLANNED SPEND	1,946,350	
TOTAL	\$ 17,799,391	

10

11 APPENDIX B provides further detail on the  
12 active user radio count for each municipality.  
13 The number of municipal radios active on  
14 OASIS dictates the total fee to that  
15 municipality.

16 The total municipal IGA radio count is 2,089  
17 active user radios, while the MC  
18 Departments radio count totals 2,359 active  
19 user radios.

20 Of note, APPENDIX B also provides the  
21 number of push-to-talks (PTTs) for the  
22 period of 2.1.2015 – 12.31.2015. PTTs are an  
23 indication of true system usage, or voice  
24 traffic, generated by each user group on the  
25 existing system.

26 Lastly, APPENDIX B projects the total fee  
27 revenue for 2017 to be \$1,807,812. The  
28 breakdown shows \$255,612 from municipal  
29 users and \$1,581,570 from MC departments.

30 This usage fee revenue is used to fund the  
31 operational cost of OASIS, under the purview  
32 of OEM. The detailed list of the operating  
33 budget for OEM Radio Services Division is  
34 provided in Appendix C. This includes radio  
35 site leases held on privately-owned property,  
36 utility costs for the sites, Shared Core  
37 hosting services to WCRS and on-going  
38 technical support from the contracted  
39 vendor.

40 Capital Improvement Fund fees will not be  
41 collected in 2017, rather 2018 is the first  
42 year with a projected amount of \$50,136. At  
43 this time, there are no recommended  
44 improvements or scheduled expenses  
45 related to the Fund. This coming year will  
46 establish the system foundation upon which  
47 to develop a five-year capital improvement  
48 plan to be expected in 2017.

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1 The projected Capital Improvement Fund  
2 balance after 12 years, in the year 2030, is  
3 \$1,479,012. This amount is to be used  
4 towards the betterment and/or replacement  
5 of OASIS as dictated by the OASIS  
6 Governance Board.

8 Comparatively, this current project cost,  
9 noted earlier, is \$17,799,391. This cost does  
10 include roughly \$4-7M for MC radios and  
11 dispatch consoles, leaving actual system  
12 cost to be approximately \$11M.

7



## OASIS Governance Board 2016 Annual Report

## 1 APPENDIX A: OASIS Project/Capital Expenses &amp; Budget

## Milwaukee County OASIS Project Capital Expenses

Category	TOTAL	2010	2011	2012	2013	2014	2015	2016
<b>Infrastructure</b>	<b>\$9,198,899.06</b>	\$0.00	\$0.00	\$0.00	\$459,944.95	\$2,115,746.78	\$4,139,504.58	\$2,483,702.75
Contract for Service #1332 with Motorola								
<b>Shared Core</b>	<b>\$402,177.53</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$86,468.17	\$315,709.36
50% of total Shared Core (as shared with Waukesha County)								
<b>Subscriber Radios</b>	<b>\$5,207,784.67</b>	\$0.00	\$0.00	\$0.00	\$1,417,011.55	\$2,600,602.88	\$136,266.25	\$1,053,903.99
Mobiles, Portables for County Departments								
<b>Contingency</b>	<b>\$1,539,560.14</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$43,635.40	\$343,799.49	\$1,152,125.25
Change Orders with Motorola and Other Unplanned Expenses								
<b>Internal Charges</b>	<b>\$33,026.55</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$19,901.76	\$13,124.79	\$0.00
Other Milwaukee County Departments (A&E, etc)								
<b>Professional Services</b>	<b>\$1,040,199.11</b>	\$0.00	\$0.00	\$20,540.80	\$24,759.15	\$323,480.94	\$284,860.88	\$386,557.34
Consultants and External Contractors								
<b>Interest</b>	<b>\$377,743.94</b>	\$2,041.00	\$95,634.67	\$76,520.00	\$26,671.39	\$32,766.00	\$48,692.00	\$95,418.88
Debt Service on WO614 Funding								
<b>TOTALS</b>	<b>\$17,799,391.00</b>	<b>\$2,041.00</b>	<b>\$95,634.67</b>	<b>\$97,060.80</b>	<b>\$1,928,387.04</b>	<b>\$5,136,133.76</b>	<b>\$5,052,716.16</b>	<b>\$5,487,417.57</b>

## Milwaukee County OASIS Project Budget

Category	TOTAL	2010	2011	2012	2013	2014	2015	2016
<b>Appropriation</b>	<b>\$14,297,634.00</b>	\$1,761,000.00	\$0.00	\$0.00	\$1,842,168.00	\$7,126,100.00	\$2,009,183.00	\$1,559,183.00
<b>Funds Transfer</b>	<b>\$3,501,757.00</b>	\$193,065.00				\$3,000,000.00	\$308,692.00	
<b>TOTALS</b>	<b>\$17,799,391.00</b>	<b>\$1,954,065.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1,842,168.00</b>	<b>\$10,126,100.00</b>	<b>\$2,317,875.00</b>	<b>\$1,559,183.00</b>

## Milwaukee County OASIS Project Account Balance (by Year)

	NET	2010	2011	2012	2013	2014	2015	2016
<b>Avail Balance</b>	<b>\$0.00</b>	\$1,952,024.00	\$1,856,389.33	\$1,759,328.53	\$1,673,109.49	\$6,663,075.73	\$3,928,234.57	\$0.00

## OASIS Governance Board 2016 Annual Report

## 1 APPENDIX B: OASIS Usage Fee and Capital Improvement Projections (2016 – 2021)

## OASIS Revenue Projections

Municipality	2/1/2015 - 12/31/2015	Radio Count	2015		2016		2017		2018		2019		2020		2021	
			2.00	\$	5.00	\$	9.00	\$	12.00	\$	14.00	\$	14.00	\$	14.00	\$
PTT	User Fee	Capital Fund	User Fee	Capital Fund	User Fee	Capital Fund	User Fee	Capital Fund	User Fee	Capital Fund	User Fee	Capital Fund	User Fee	Capital Fund	User Fee	Capital Fund
Bayside	1,081,331	40	\$ 960.00	\$ -	\$ 2,400.00	\$ -	\$ 4,320.00	\$ -	\$ 5,760.00	\$ 960.00	\$ 6,720.00	\$ 1,440.00	\$ 6,720.00	\$ 1,920.00	\$ 6,720.00	\$ 2,400.00
Brown Deer	53	53	\$ 1,272.00	\$ -	\$ 3,180.00	\$ -	\$ 5,724.00	\$ -	\$ 7,632.00	\$ 1,272.00	\$ 8,904.00	\$ 1,908.00	\$ 8,904.00	\$ 2,544.00	\$ 8,904.00	\$ 3,180.00
Cudahy	462,068	96	\$ 2,304.00	\$ -	\$ 5,760.00	\$ -	\$ 10,368.00	\$ -	\$ 13,824.00	\$ 2,304.00	\$ 16,128.00	\$ 3,456.00	\$ 16,128.00	\$ 4,608.00	\$ 16,128.00	\$ 5,760.00
Fox Point	21	21	\$ 504.00	\$ -	\$ 1,260.00	\$ -	\$ 2,268.00	\$ -	\$ 3,024.00	\$ 504.00	\$ 3,528.00	\$ 756.00	\$ 3,528.00	\$ 1,008.00	\$ 3,528.00	\$ 1,260.00
Franklin	736,633	165	\$ 3,960.00	\$ -	\$ 9,900.00	\$ -	\$ 17,820.00	\$ -	\$ 23,760.00	\$ 3,960.00	\$ 27,720.00	\$ 5,940.00	\$ 27,720.00	\$ 7,920.00	\$ 27,720.00	\$ 9,900.00
Glendale	57	57	\$ 1,368.00	\$ -	\$ 3,420.00	\$ -	\$ 6,156.00	\$ -	\$ 8,208.00	\$ 1,368.00	\$ 9,576.00	\$ 2,052.00	\$ 9,576.00	\$ 2,736.00	\$ 9,576.00	\$ 3,420.00
Greendale	421,898	120	\$ 2,880.00	\$ -	\$ 7,200.00	\$ -	\$ 12,960.00	\$ -	\$ 17,280.00	\$ 2,880.00	\$ 20,160.00	\$ 4,320.00	\$ 20,160.00	\$ 5,760.00	\$ 20,160.00	\$ 7,200.00
Hales Corners	422,987	86	\$ 2,064.00	\$ -	\$ 5,160.00	\$ -	\$ 9,288.00	\$ -	\$ 12,384.00	\$ 2,064.00	\$ 14,448.00	\$ 3,096.00	\$ 14,448.00	\$ 4,128.00	\$ 14,448.00	\$ 5,160.00
Northshore FD	161,224	120	\$ 2,880.00	\$ -	\$ 7,200.00	\$ -	\$ 12,960.00	\$ -	\$ 17,280.00	\$ 2,880.00	\$ 20,160.00	\$ 4,320.00	\$ 20,160.00	\$ 5,760.00	\$ 20,160.00	\$ 7,200.00
Oak Creek	879,704	172	\$ 4,128.00	\$ -	\$ 10,320.00	\$ -	\$ 18,576.00	\$ -	\$ 24,768.00	\$ 4,128.00	\$ 28,896.00	\$ 6,192.00	\$ 28,896.00	\$ 8,256.00	\$ 28,896.00	\$ 10,320.00
River Hills	18	18	\$ 432.00	\$ -	\$ 1,080.00	\$ -	\$ 1,944.00	\$ -	\$ 2,592.00	\$ 432.00	\$ 3,024.00	\$ 648.00	\$ 3,024.00	\$ 864.00	\$ 3,024.00	\$ 1,080.00
Shorewood	41	41	\$ 984.00	\$ -	\$ 2,460.00	\$ -	\$ 4,428.00	\$ -	\$ 5,904.00	\$ 984.00	\$ 6,888.00	\$ 1,476.00	\$ 6,888.00	\$ 1,968.00	\$ 6,888.00	\$ 2,460.00
South Milwaukee	377,985	86	\$ 2,064.00	\$ -	\$ 5,160.00	\$ -	\$ 9,288.00	\$ -	\$ 12,384.00	\$ 2,064.00	\$ 14,448.00	\$ 3,096.00	\$ 14,448.00	\$ 4,128.00	\$ 14,448.00	\$ 5,160.00
St. Francis	303,475	89	\$ 2,136.00	\$ -	\$ 5,340.00	\$ -	\$ 9,612.00	\$ -	\$ 12,816.00	\$ 2,136.00	\$ 14,952.00	\$ 3,204.00	\$ 14,952.00	\$ 4,272.00	\$ 14,952.00	\$ 5,340.00
Wauwatosa	855,556	224	\$ 5,376.00	\$ -	\$ 13,440.00	\$ -	\$ 24,192.00	\$ -	\$ 32,256.00	\$ 5,376.00	\$ 37,632.00	\$ 8,064.00	\$ 37,632.00	\$ 10,752.00	\$ 37,632.00	\$ 13,440.00
West Allis	1,663,281	425	\$ 10,200.00	\$ -	\$ 25,500.00	\$ -	\$ 45,900.00	\$ -	\$ 61,200.00	\$ 10,200.00	\$ 71,400.00	\$ 15,300.00	\$ 71,400.00	\$ 20,400.00	\$ 71,400.00	\$ 25,500.00
Whitefish Bay	34	34	\$ 816.00	\$ -	\$ 2,040.00	\$ -	\$ 3,672.00	\$ -	\$ 4,896.00	\$ 816.00	\$ 5,712.00	\$ 1,224.00	\$ 5,712.00	\$ 1,632.00	\$ 5,712.00	\$ 2,040.00
West Milwaukee	267,533	47	\$ 1,128.00	\$ -	\$ 2,820.00	\$ -	\$ 5,076.00	\$ -	\$ 6,768.00	\$ 1,128.00	\$ 7,896.00	\$ 1,692.00	\$ 7,896.00	\$ 2,256.00	\$ 7,896.00	\$ 2,820.00
MADACC	70,234	17	\$ 408.00	\$ -	\$ 1,020.00	\$ -	\$ 1,836.00	\$ -	\$ 2,448.00	\$ 408.00	\$ 2,856.00	\$ 612.00	\$ 2,856.00	\$ 816.00	\$ 2,856.00	\$ 1,020.00
HIDTA	68,076	72	\$ 1,728.00	\$ -	\$ 4,320.00	\$ -	\$ 7,776.00	\$ -	\$ 10,368.00	\$ 1,728.00	\$ 12,096.00	\$ 2,592.00	\$ 12,096.00	\$ 3,456.00	\$ 12,096.00	\$ 4,320.00
VA Police	1,721	26	\$ 624.00	\$ -	\$ 1,560.00	\$ -	\$ 2,808.00	\$ -	\$ 3,744.00	\$ 624.00	\$ 4,368.00	\$ 936.00	\$ 4,368.00	\$ 1,248.00	\$ 4,368.00	\$ 1,560.00
Mayfair	984,909	80	\$ 1,920.00	\$ -	\$ 4,800.00	\$ -	\$ 8,640.00	\$ -	\$ 11,520.00	\$ 1,920.00	\$ 13,440.00	\$ 2,880.00	\$ 13,440.00	\$ 3,840.00	\$ 13,440.00	\$ 4,800.00
IGA Total	8,917,239	2,089	\$ 50,136.00	\$ -	\$ 125,340.00	\$ -	\$ 225,612.00	\$ -	\$ 300,816.00	\$ 50,136.00	\$ 350,952.00	\$ 75,204.00	\$ 350,952.00	\$ 100,272.00	\$ 350,952.00	\$ 125,340.00
			Fund Balance		\$ 125,340.00		\$ 225,612.00		\$ 300,816.00		\$ 350,952.00		\$ 350,952.00		\$ 350,952.00	
			\$ 55.87		\$ 55.87		\$ 55.87		\$ 55.87		\$ 55.87		\$ 55.87		\$ 55.87	
MC Total	7,054,338*	2,359	\$ 1,581,570.00	\$ -	\$ 1,581,570.00	\$ -	\$ 1,581,570.00	\$ -	\$ 1,581,570.00	\$ -	\$ 1,581,570.00	\$ -	\$ 1,581,570.00	\$ -	\$ 1,581,570.00	\$ -
User Fees Total	15,971,577	4,448	\$ 1,631,706.00	\$ -	\$ 1,706,910.00	\$ -	\$ 1,807,182.00	\$ -	\$ 1,882,386.00	\$ 50,136.00	\$ 1,932,522.00	\$ 125,340.00	\$ 1,932,522.00	\$ 225,612.00	\$ 1,932,522.00	\$ 350,952.00
			2030 Capital Fund Balance*		\$ 1,479,012.00											



## OASIS Governance Board 2016 Annual Report

APPENDIX C: OEM Radio Services Division  
Operations & Maintenance Budget**Revenue Summary (2017)**

County Department Radio Charges	\$1,581,570.00
Municipal Radio Charges	\$225,612.00
<b>TOTAL REVENUE</b>	<b>\$1,807,182.00</b>

**Expenditure Summary (2017)**

PERSONNEL SERVICES	\$344,348.00
COMMODITIES/ SERVICES	\$1,374,555.39
CROSSCHARGES	\$24,314.00
INFRASTRUCTURE REPAIR FUND	\$63,964.61
<b>TOTAL EXPENDITURES</b>	<b>\$1,807,182.00</b>

**Expenditure Details (2017)**

<b>PERSONAL SERVICES</b>	
SALARIES-WAGES BUDGET	\$217,142.00
OVERTIME	\$0.00
SOCIAL SECURITY TAXES	\$16,612.00
ADJ-SOCIAL SEC TAXES	\$0.00
OPEB LIABILITY	\$7,947.00
COMPENSATED ABSENCES	\$294.00
EMPLOYEE HEALTH CARE	\$36,651.00
EMPLOYEE PENSION	\$29,747.00
LEGACY HEALTHCARE	\$12,210.00
LEGACY PENSION	\$23,745.00
<b>TOTAL PERSONAL SERVICES</b>	<b>\$344,348.00</b>
<b>CROSSCHARGES</b>	
TECHNICAL SUPPORT & INFRASTRCT	\$2,570.00
R/M COMPUTER EQUIP CHARGES	\$12,000.00
APPLICATIONS CHGS--NETWORK	\$3,539.00
HRIS ALLOCATION	\$478.00
IMSD CENTRAL PURCHASES	\$4,000.00
PERSONAL COMPUTER CHARGES	\$1,727.00
<b>TOTAL CROSSCHARGES</b>	<b>\$24,314.00</b>
<b>COMMODITIES/ SERVICES</b>	
MEMBERSHIP DUES	\$150.00
ELECTRICITY	\$47,000.00
NATURAL GAS	\$900.00
TEL AND TEL OUTSIDE VEN	\$84,945.12
FIRE PROTECTION	\$1,000.00
BUILDING AND SPACE RENTAL	\$157,832.01
R/M-BLDG AND STRUCTURES	\$11,320.00
R/M GROUNDS	\$3,400.00
R/M MACHINERY TOOLS EQ	\$1,043,948.26
R/M RADIOS TRANSMTRS	\$13,860.00
Fleet Vehcile	\$6,000.00
Fuel	\$600.00
AUTO ALLOWANCE	\$500.00
CONFERENCE EXPENSES	\$2,000.00
HARDWARE & OTHER MATERIAL	\$500.00
OFFICE SUPPLIES	\$300.00
MINOR OFFICE EQUIPMENT	\$300.00
<b>TOTAL COMMODITIES/SERVICES</b>	<b>\$1,374,555.39</b>

## Certificate Of Completion

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Andy Pederson apederson@bayside-wi.gov Village Manager Security Level: Email, Account Authentication (None)	 DocuSigned by: <b>Andy Pederson</b> 5A2819C69F84424... Using IP Address: 207.67.101.116	Sent: 5/20/2016 3:54:43 PM Viewed: 5/20/2016 4:05:53 PM Signed: 5/20/2016 4:06:50 PM
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 ID: 994d0a4a-0e7a-427d-8c53-f90f980cd562

In Person Signer Events	Signature	Timestamp
Editor Delivery Events	Status	Timestamp
Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp
Christian Ruka christian.ruka@milwaukeecountywi.gov Security Level: Email, Account Authentication (None) Electronic Record and Signature Disclosure: Not Offered via DocuSign ID:	<div>COPIED</div>	Sent: 5/20/2016 7:53:45 AM Viewed: 5/20/2016 4:12:42 PM
Notary Events		Timestamp

Envelope Summary Events	Status	Timestamps
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Completed	Security Checked	5/20/2016 4:06:50 PM

**Electronic Record and Signature Disclosure**

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To contact us by email send messages to: [plee@milwcnty.com](mailto:plee@milwcnty.com)

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To let us know of a change in your e-mail address where we should send notices and disclosures electronically to you, you must send an email message to us at [plee@milwcnty.com](mailto:plee@milwcnty.com) and in the body of such request you must state: your previous e-mail address, your new e-mail address. We do not require any other information from you to change your email address..

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- i. decline to sign a document from within your DocuSign account, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;
- ii. send us an e-mail to [plee@milwcnty.com](mailto:plee@milwcnty.com) and in the body of such request you must state your e-mail, full name, IS Postal Address, telephone number, and account number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

### **Required hardware and software**

Operating Systems:	Windows2000? or WindowsXP?
Browsers (for SENDERS):	Internet Explorer 6.0? or above
Browsers (for SIGNERS):	Internet Explorer 6.0?, Mozilla FireFox 1.0, NetScape 7.2 (or above)
Email:	Access to a valid email account
Screen Resolution:	800 x 600 minimum
Enabled Security Settings:	<ul style="list-style-type: none"><li>• Allow per session cookies</li><li>• Users accessing the internet behind a Proxy Server must enable HTTP</li></ul>

	1.1 settings via proxy connection
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